

REMARKS

Claims 1-54 were pending and presented for examination in this application. In an Office Action dated August 20, 2008, claims 1-54 were rejected.

Claims 1, 6, 8, 10-13, 20-25, 30, 34, 35, 40, 44, 45, 50 and 54 have been amended. Claims 2-5, 7, 9, 14-19, 26-29, 31-33, 36-39, 41-43, 46-49, 51-53 have been cancelled. Applicants respectfully request reconsideration of the present application in view of the above amendments and the following remarks.

Response to Rejection under 35 U.S.C. § 101

In paragraph 2 of page 2 of the detailed action, the Examiner rejected Claims 25-50 under 35 U.S.C. § 101 because the claimed invention is allegedly directed to non-statutory subject matter. The Examiner contends that the claims are not clearly directed to statutory subject matter.

Applicants have amended claims to more clearly define the claimed invention. In particular, claim 25 and 45 have been amended to specify that they are directed to a node having software portions. Applicants submit in networking, a node is an active electronic device that is attached to a network, and is capable of sending, receiving, or forwarding information over a communications channel. Claims 30, 34, 50 and 54 have been amended to specify that they are directed to a server device to clarify that the claims refer a server as hardware. Claims 35, 40 and 44 have been amended to recite a computer readable storage medium and to clarify functional interrelationships between the computer program and the computer which permit the computer program's functionality to be realized. When a computer program is recited as part of

an otherwise statutory machine, the claim remains statutory irrespective of the fact that a computer program is included in the claim. See MPEP 2601.1. Thus, claim 25, 30, 34, 35, 40, 44, 45, 50 and 54 as amended recites statutory subject matter a node, server device or computer readable storage medium, and therefore, Applicants request the withdrawal of the rejection of these claims under 35 U.S.C. § 101.

Response to Rejection under 35 U.S.C. § 103

In paragraph 4 of page 3 of the detailed action, the Examiner rejected Claims 1-4, 9-17, 19-20, and 22-50 under 35 U.S.C. § 103(a) as being unpatentable over RFC 3053 (IPv6 Tunnel Broker), further in view of Waddington (Realizing the Transition to IPv6), further in view of Stevens (TCP/IP Illustrated, Volume 1: The Protocols).

Claims 1, 6, 8, 10-13, 20-25, 30, 34, 35, 40, 44, 45, 50 and 54 have been amended to more clearly define the present invention. Applicants respectfully traverse the rejection of amended claims 1, 6, 8, 10-13, 20-25, 30, 34, 35, 40, 44, 45, 50 and 54 under 35 U.S.C. § 103(a).

Independent claim 1 has been amended to recite:

A method for an IPv6 enabled node to engage in IPv6 communication across a network containing IPv4 components, the method comprising:
transmitting a query identifying the IPv6 enabled node to a Domain Name System server;
receiving at least one name of an IPv6 connect agent from the Domain Name System server;
transmitting a name of a desired IPv6 connect agent to the Domain Name System server;
receiving an address of the desired IPv6 connect agent from the Domain Name System server; and
engaging in IPv6 communication across the network using the address.

Independent claims 25, 35 and 45 have been amended to recite similar limitations as those in claim 1.

Independent claim 13 has been amended to recite:

A method for a Domain Name System server in a network containing IPv4 components to provide to an IPv6 enabled node an address of an IPv6 connect agent, the method comprising:

- receiving a query identifying the IPv6 enabled node from the IPv6 enabled node;
- transmitting at least one name of one IPv6 connect agent to the IPv6 enabled node;
- receiving a name of a desired IPv6 connect agent from the IPv6 enabled node; and
- transmitting an address of the desired IPv6 connect agent to the IPv6 enabled node.

Independent claims 30, 40 and 50 have been amended to recite similar limitations as those in claim 13.

These independent claims are directed to method and devices that implement the automatic discovery and connection with IPV6 connect agents. In particular, the claimed invention uses the DNS sever to perform a reverse look up to determine the available and appropriate IPv6 connect agent with which to connect and establish communication.

The Examiner contends that RFC 3053 discloses an IPv6 enabled node to engage in IPv6 communication across a network containing IPv4 components and admits that RFC 3053 RFC 3053 does not explicitly show where there is a query to a Domain Name System server. The Examiner states that the Domain Name System server is disclosed by Waddington and that Stevens discloses a query to a Domain Name System server identifies the enabled node, and that it would have been obvious to combine the teachings of RFC 305, Waddington and Stevens.

Applicants respectfully traverse. The combination of references as suggested by the examiner does not teach the claimed methods for automatic discovery of the IPv6 connect agent.

First, at page 2 of the RFC 3053 discloses that “in the emerging IPv6 Internet it is expected that many tunnel brokers will be available so that the user will just have to pick one,”

but fails to disclose “how the user can pick one tunnel broker.” This is precisely what the claimed invention is directed to and recites. In other words, pages 2 and 3 of RFC 3053 only disclose the processing of the tunnel broker after one of the tunnel brokers is selected, and therefore fails to disclose the process of automatically discovering an IPv6 connect agent using reverse DNS lookup as recited in the amended claims 1, 13, 25, 30, 35, 40, 45 and 50. This is processing of automatically discovering an IPv6 connect agent as claimed is not disclosed or suggested by Waddington or Stevens. Therefore, for at least this reason, the Applicants believe the claimed invention is patentably distinct over RFC 3053, alone or in combination with the other art of record.

Second, the Examiner asserts that “Waddington shows querying a Domain Name System server, and responsive to sending the query, the IPv6 enabled node receiving at least one identifier of at least one IPv6 connect agent from the Domain Name System server (pg. 139, col. 2).” However, that portion only discloses that “tunnel endpoint addresses are generally attained through existing services, such as a well-known DNS service name or DHCP options.” Therefore, the “tunnel endpoint addresses” are received from the DNS server, which are not “the address of the desired IPv6 connect agent” as recited in the amended claims 1, 13, 25, 30, 35, 40, 45, and 50. There is no teaching or suggestion about the “address of the desired IPv6 connect agent” being transmitted or received. RFC 3053 and Stevens also fail to teach or disclose receiving or transmitting the address of the desired IPv6 connect agent delivered from the DNS server. Therefore, for this reason as well, the Applicants submit that the claimed invention is patentably distinct over the Waddington, alone or in combination with the other art of record.

Third, Stevens only discloses general explanations of DNS and ARP. Stevens fails to disclose or suggest the information exchanged by the DNS server and the IPv6 enabled node facilitate automatic discover and connection in an IPv6 network or that an address of a desired

IPv6 connect agent is received and transmitted. Thus, the claimed invention is patentably distinct over Stevens alone or in combination with the other art of record.

Accordingly, none of the three references, alone or in combination, discloses the features of the amended claims 1, 13, 25, 30, 35, 40, 45 and 50. Thus, claims 1, 13, 25, 30, 35, 40, 45 and 50 are patentably distinct and Applicants respectfully request allowance of these claims. Claims 6, 8, 10-12, 20-24, 34, 44 and 54 depend from independent claims 1, 13, 25, 30, 35, 40, 45 and 50, and therefore include all the limitations of the independent claims; and for at least the reasons set forth above are also patentably distinct over the art of record and in a condition for allowance.

Applicants respectfully submit that the pending claims are allowable over the cited art of record for at least the above reasons and request that the Examiner allow this case. The Examiner is invited to contact the undersigned in order to advance the prosecution of this application.

Respectfully submitted,
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